

The opinion in support of the decision entered today was not written for publication and is not binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EDMUND A. STANCZAK

Appeal No. 2003-0083
Application No. 09/691,532

ON BRIEF

Before COHEN, STAAB, and McQUADE, Administrative Patent Judges.

STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1, 7-9, 15 and 16. Claims 3-6, 11-14, 17 and 18, the only other claims currently pending in the application, have been allowed.

Appellant's invention pertains to a debris extractor for use with an axle wheel end. As explained on pages 1-2 of appellant's specification, ferrous metallic debris builds up in lubricant in the axle wheel end cavity during vehicle operation. Appellant's invention involves providing a magnet in the axle wheel to attract this ferrous metallic debris. Thus,

the debris is removed from the lubricant in the wheel axle and prevented from causing excessive wear to the wheel components over time. A further understanding of the invention can be derived from a reading of exemplary claims 1 and 9, respective copies of which appear in the appendix to appellant's main brief.¹

The references of record relied upon by the examiner as evidence of obviousness are:

Frehse	4,834,464	May 30, 1989
Ehrlich	5,538,330	Jul. 23, 1996

Claims 7 and 15 stand rejected under 35 U.S.C. § 112, second paragraph, "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention" (final rejection, page 2).

Claims 1, 7-9, 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ehrlich in view of Frehse.

Reference is made to appellant's main and reply briefs (Paper Nos. 12 and 14) and to the examiner's final rejection and answer (Paper Nos. 6 and 13) for the respective positions of appellant and the examiner regarding the merits of these rejections.

The 35 U.S.C. § 112, second paragraph, rejection

Appellant's specification discloses several debris extractor embodiments. In a first embodiment (see Figures 2, 3a and 3b) the debris extractor takes the form of an assembly

¹The appendix to the main brief also includes copies of allowed claims 3-6, 11-14, 17 and 18.

comprising a steel end plug 28 having a vent hole 30, and a flat round magnet 34 having an aperture 36 positioned in the end plug. As can be discerned from Figure 2, the end plug and magnet assembly are located in a recess 32 opening to the interior of axle 22. In an alternative embodiment (see Figure 4),

the entire axle end plug 28 is comprised of a magnetic material, the flat round magnet is not employed. The axle end plug also includes a vent hole 30 located substantially in the center of the axle end plug 28 to allow the cavity 18 of the axle wheel end 10 to vent to the interior of the axle 22.
[Specification, page 5.]

Representative claims 1 and 7 read as follows:

1. A debris extractor for use with an axle wheel end comprising:

an axle end plug for insertion into an end of an axle, said axle end plug including a first aperture of a first diameter; and

a magnetic portion.
7. The debris extractor as recited in claim 1 wherein said axle end plug is comprised of said magnetic portion.

Independent claim 9 is similar to claim 1 with the added feature of the debris extractor being claimed in combination with an axle wheel end. Claim 15 depends from claim 9 and is similar to claim 9.

In rejecting claims 7 and 15 under 35 U.S.C. § 112, second paragraph, the examiner takes the following position:

. . . [I]t is believed that [dependent] claims 7 and 15 limit the axle end plug to being comprised of a single element, while the independent claims from which claims 7 and 15 depend (claims 1 and 9) set forth the debris extractor as comprising two elements: an axle end plug and a magnet portion. This is

seen as two elements. Therefore, claims 7 and 15 are indefinite because two elements are now being claimed as one element and this improperly limits the invention.

. . . . [C]laims 7 and 15 clearly state that the “axle end plug is comprised of said magnetic portion.” This limitation is understood to claim the axle end plug and the magnetic portion as a single element. [Answer, page 4.]

We understand the examiner’s position to be that dependent claims 7 and 15 do not comply with the requirements of the second paragraph of 35 U.S.C. § 112 because they are seen as being directed to the Figure 4 embodiment (a debris extractor comprising an axle end plug and magnetic portion formed, in the examiner’s words, as “a single element”), whereas base claims 1 and 9 from which claims 7 and 15 respectively depend are seen as being directed to the Figures 2, 3a and 3b embodiment (a debris extractor comprising an axle end plug and a magnetic portion formed “as two elements”). From our perspective, base claims 1 and 9 are broad in the sense that they encompass both of the Figures 2, 3a and 3b embodiment and the Figure 4 embodiment. Hence, the circumstance that claims 7 and 15 may be directed to subject matter wherein the axle end plug and magnetic portion comprise what the examiner has characterized as “a single element” is not improper. For this reason, we shall not sustain the standing rejection of claims 7 and 15 under 35 U.S.C. § 112, second paragraph.

The 35 U.S.C. § 103(a) rejection

We take up first for consideration the examiner’s rejection of claim 1 as being unpatentable over Ehrlich in view of Frehse.

Ehrlich pertains to an apparatus for mounting a wheel on a vehicle including a hollow, non-rotatable axle 22, a wheel hub 40 having a hollow spindle 30, and a valve or venting structure 68 positioned within the spindle. The valve is a soft, flexible membrane or diaphragm that is made of suitable material such as a soft flexible polymer (col. 3, lines 36-38) and includes a narrow slit 72 for opening and closing the valve in response to pressure differentials created during operation of the vehicle (col. 3, lines 39-42). The valve operates in the manner set forth at col. 4, lines 17-44, to vent the wheel hub cavity 42 to the interior of the axle and prevent the build-up of pressure in cavity 42 during use. It is conceded by the examiner that Ehrlich does not respond to the “magnetic portion” limitation of claim 1.

Frehse is directed to a vented plug 12 for a wheel bearing hub assembly, wherein the plug includes a magnetic portion 11 that serves to collect metallic particles from the bearing lubricating fluid. Based on the teachings of the applied references, the examiner considered that it would have been obvious to one of ordinary skill in the art at the time of the invention “to provide the axle plug of Ehrlich with a magnetic portion to help remove metallic debris which may travel between the interior of the axle and the area inside the hub cap” (final rejection, page 3). In an apparent modification of the examiner’s position in response to arguments made by appellant in the main brief, the examiner now considers that it would have been obvious “to provide [the] axle vent assembly of Ehrlich with a magnetic portion” to help remove any ferrous metallic debris (answer, page 5).

Appellant argues in the main brief as follows:

. . . . If the magnetic rod 11 of Frehse was combined with the flexible axle plug 68 of Ehrlich, the non-flexible solid magnetic rod 11 would hinder the opening and closing of the slit 72. The addition of the magnetic rod of Frehse would ruin the benefit of flexibility of the plug 68.

Additionally, the apparently thin membrane 70 of Ehrlich would not be able to support a magnetic rod 11. Also, attracting metal particles through the proposed magnet would tear the thin membrane 70. There is thus no motivation to combine Ehrlich and Frehse. The proposed combination would ruin benefits of Ehrlich, which renders the combination improper under true patent laws. [Main brief, page 4.]

This argument is repeated in the reply brief.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In the present case, we agree with the examiner that the combined teachings of Ehrlich and Frehse would have suggested the subject matter set forth in independent claim 1.

With regard to the basic proposed combination of the two references, we share the examiner's view that it would have been obvious to provide the wheel axle assembly of Ehrlich with a magnetic portion in view of Frehse. Frehse's teaching of providing a wheel axle with a magnet for the purpose of collecting ferrous metallic particles from the

lubricating fluid to prevent such particles from causing excessive wear to the wheel bearings (Frehse, col. 1, lines 14-38) would have provided ample suggestion for this modification.

As to appellant's arguments, it appears that they are based on the view that claims requires the "magnetic portion" to be a part of the axle end plug. However, no such limitation appears in claim 1. Thus, appellant's arguments fails at the outset with respect to claim 1. *In re Self*, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982). Moreover, while appellant argues (main brief, page 4) that incorporating a magnetic rod into Ehrlich's wheel axle assembly in accordance with the teachings of Frehse "would ruin the benefit of Ehrlich," we again note that all of the features of the secondary reference need not be bodily incorporated into the secondary reference (*In re Keller*, 642 F.2d at 425, 208 USPQ at 881). Additionally, the artisan is not compelled to blindly follow the teachings of one prior art reference over the other without the exercise of independent judgement (*Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889, 221 USPQ 1025, 1032 (Fed. Cir. 1984)). Here, we consider that the secondary reference to Frehse broadly teaches incorporating a magnetic element into the wheel axle assembly to collect ferrous metallic particles in the lubricating oil of the bearings. In providing this feature in Ehrlich the skilled artisan would not do so in a way that would make Ehrlich's valve unsuitable for its intended purpose, as urged by appellant. After all, it is skill in the art, rather than the converse, that we are to presume. *In re Sovish*, 769 F.2d 738, 742, 226 USPQ 771, 774

(Fed. Cir. 1985). In any event, we are appraised of no persuasive evidence of record to support appellant's contention that incorporating a magnet element in Ehrlich would hinder the operation of the flexible valve 68 or cause it to tear. It is well settled that an attorney's argument in the brief cannot take the place of evidence and that arguments of counsel, unsupported by competent factual evidence of record, are entitled to little weight. See *In re Payne*, 606 F.2d 303, 315, 203 USPQ 245, 256 (CCPA 1979) and *In re Pearson*, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

In light of the foregoing, we shall sustain the standing rejection of claim 1 as being unpatentable over Ehrlich in view of Frehse. We shall also sustain the standing rejection of claim 9 as being unpatentable over Ehrlich in view of Frehse since appellant has not argued this claim apart from claim 1. *In re Kaslow*, 707 F.2d 1366, 1376, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

Looking next at dependent claim 7, appellant indicates on pages 4-5 of the main brief that this claim is separately contested. Like the examiner, we consider that it also would have been obvious to one of ordinary skill in the art, in applying the teachings of Frehse in Ehrlich, to provide a magnet portion on Ehrlich's venting valve 68 such that the axle end plug "is comprised of" the magnetic portion. This is suggested by Frehse, which discloses magnet 11 as being mounted on the vent plug 12. As to appellant's above noted argument to the effect that providing a magnetic portion on Ehrlich's valve 68 would hinder the operation of the valve or cause it to tear, we again observe that this argument is

entitled to little weight in that it is not supported by persuasive evidence of record in the application.

Accordingly, the rejection of claim 7 as being unpatentable over Ehrlich in view of Frehse shall be sustained. The rejection of dependent claim 15 shall also be sustained since appellant has not argued this claim apart from claim 9.

The rejection of claims 8 and 16, which depend respectively from claims 7 and 15, likewise shall be sustained because they have not been separately argued apart from the claims from which they depend.

Summary

The rejection of claims 7 and 15 under 35 U.S.C. § 112, second paragraph, is reversed.

The rejection of claims 1, 7-9, 15 and 16 under 35 U.S.C. § 103(a) is affirmed.

Since at least one rejection of each of the appealed claims has been affirmed, the decision of the examiner finally rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

IRWIN CHARLES COHEN
Administrative Patent Judge

LAWRENCE J. STAAB
Administrative Patent Judge

JOHN P. McQUADE
Administrative Patent Judge

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